

WHAT IS CLAIMED IS:

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1. An pneumatic tire comprising:
- a tread;
- a lug groove extending from a shoulder side of said tread toward a tire central plane, the lug groove being provided in plurality at said tread in the tire circumferential direction to form a lug pattern; and
- a recess portion being provided in a center region of the tread, the center region extending in the tire circumferential direction with a width that is 50% of a maximum width (W) of tire ground contacting portion so as to be symmetrical with respect to the tire central plane of said tread,
- wherein a negative ratio of the center region other than said lug groove is set to 10% to 25%.
2. A pneumatic tire according to claim 1, wherein a depth of said recess portion is 10% to 45% of the maximum depth of said lug groove.
3. A pneumatic tire according to claim 1, wherein said recess portion is at least one auxiliary groove sequentially formed in the tire circumferential direction.
4. A pneumatic tire according to claim 1, wherein a depth of said lug groove is made gradually shallower from the shoulder side toward the tire central plane.
5. A pneumatic tire according to claim 1, wherein a maximum depth of said lug groove in said center region of said

tread is 60 mm or more.

6. A pneumatic tire according to claim 4, wherein a bottom portion of said lug groove, in a cross section thereof in the tire radial direction, is free of a portion normal to the central plane of the tire, in a region between said tire central plane and a point which is distant by  $W/4$  from the central plane.

*Sub A2* 7. A pneumatic tire according to claim 4, wherein a cross section in the tire radial direction of said lug groove bottom portion is inclined by substantially 80 degrees with respect to the tire central plane in a region having the width of  $1/5$  or more of a tread half width.

8. A pneumatic tire according to claim 5, wherein a maximum depth of said lug groove at a point which is distant by  $W/4$  from the tire central plane is set to 60 mm or more.

9. A pneumatic tire according to claim 3, wherein said auxiliary groove is at least one groove portion that is sequentially formed in the tire circumferential direction so as to connect the adjacent lug grooves.

*Sub A3* 10. A pneumatic tire according to claim 3, wherein said auxiliary groove is at least one self-closing type groove portion that is sequentially formed in the tire circumferential direction at a land portion positioned between the adjacent lug grooves.

11. A pneumatic tire according to claim 10, wherein said

auxiliary groove is at least one substantially circular groove portion that is sequentially formed in the tire circumferential direction at a land portion positioned between the adjacent lug grooves.

*Sub A17*  
12. A pneumatic tire comprising:

a tread;

a lug groove extending from a shoulder side of said tread toward a tire central plane, the lug groove being provided in plurality at said tread in the tire circumferential direction to form a lug pattern; and

a recess portion being provided in a center region of the tread, the center region extending in the tire circumferential direction with a width that is 50% of a maximum width (W) of tire ground contacting portion so as to be symmetrical with respect to the tire central plane of said tread,

wherein a depth of said recess portion is set to 10% to 45% of a maximum depth of said lug groove.

13. A pneumatic tire according to claim 12, wherein a negative ratio of the center region other than said lug groove is set to 10% to 25%.

14. A pneumatic tire according to claim 12, wherein said recess portion is at least one auxiliary groove sequentially formed in the tire circumferential direction.

15. A pneumatic tire according to claim 12, wherein a depth of said lug groove is made gradually shallower from the

shoulder side toward the tire central plane.

16. A pneumatic tire according to claim 12, wherein a maximum depth of said lug groove in said center region of said tread is 60 mm or more.

17. An pneumatic tire comprising:

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a tread;

a lug groove extending from a shoulder side of said tread toward a tire central plane, the lug groove being provided in plurality at said tread in the tire circumferential direction to form a lug pattern;

a recess portion continuously provided in the tire circumferential direction on the tire central plane of said tread; and

another recess portion sequentially formed in the tire circumferential direction in a center region that extends in the tire circumferential direction with a width that is 50% of the maximum width (W) of tire ground contacting portion so as to be symmetrical with respect to the tire central plane of said tread,

wherein a negative ratio of the center region other than said lug groove is set to 10% to 25%.

18. A pneumatic tire according to claim 17, wherein a depth of said recess portion is 10% to 45% of the maximum depth of said lug groove.

19. A pneumatic tire according to claim 17, wherein a

depth of said lug groove is made gradually shallower from the shoulder side toward the tire central plane.

20. A pneumatic tire according to claim 17, wherein a maximum depth of said lug groove in said center region of said tread is 60 mm or more.

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